DOCUMENT RESUME

ED 350 618 CS 213 566

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TITLE Predicting Performance in Practical Writing: Factors That Influence Success in the Introductory Business Communication Course.
PUB DATE Mar 92
NOTE 9p.; Paper presented at the Annual Meeting of the College English Association (23rd, Pittsburgh, PA, March 27-29, 1992).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; *Business Communication; Factor Analysis; Higher Education; *Introductory Courses; Nontraditional Students; Part Time Students; *Predictor Variables; Questionnaires; Undergraduate Students; Writing Research
IDENTIFIERS *Practical Writing; York College PA

ABSTRACT

A study attempted to develop and test a questionnaire that could combine various sorts of demographic information to identify strong or weak students and forecast their course performance. The study determined if a significant relationship existed between students' personal and academic profiles and their final course grades in an introductory business communication course. Subjects, all 402 students who completed the introductory business communication course at York College of Pennsylvania between September 1989 and December 1990, completed a survey form and reported their grades in a required two-semester freshman composition sequence. Results indicated that: (1) as the age of the subjects increased, so did the grades earned; (2) part-time students performed better than did full-time students; (3) women's course performance surpassed men's at all levels, both in the composition course and the business communication course; and (4) students' course grades in the business communication course were significantly related to the students' GPA and grades in the composition course. A follow-up sampling confirmed the effectiveness of the questionnaire approach. Enrollment status, GPA, and grades in the composition course were chosen as performance indicators. The questionnaire proved to be a useful predictive tool. Findings suggest that eventual performance in the introductory business communication course can be addressed through a questionnaire rather than only through formal testing. (RS)

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PREDICTING PERFORMANCE IN PRACTICAL WRITING: FACTORS THAT INFLUENCE SUCCESS IN THE INTRODUCTORY BUSINESS COMMUNICATION COURSE

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PREDICTING PERFORMANCE IN PRACTICAL WRITING: FACTORS THAT INFLUENCE SUCCESS IN THE INTRODUCTORY BUSINESS COMMUNICATION COURSE

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INTRODUCTION

Because a wide variety of students takes introductory business communication courses, differing ability levels routinely occur within any particular section of such a course. Recognition of those differences may allow instructors better to assess and address the needs of specific students. In particular, identification of students likely to need extra help can increase the possibility of success for those students. For reasons such as these, a number of studies have examined ways of predicting student performance in the introductory course.

Grammar tests in particular have proved useful in such prediction. Typical are the findings of Waltman and Smeltzer (1988) that a significant relationship exists between the final grades in the introductory course and "scores on an objective English grammar test." This study further concluded that "competency in grammar is a factor in the relative success of students in business communication" (p. 64). Bowman, Branchaw, and DeRyke (1989) found that both pretests and ACT scores could predict course performance. They determined that a computerized test program was an efficient way of administering a grammar skills evaluation.

Limits may exist, however, upon the relevancy of diagnostic grammar tests as a means of screening students at the start of the introductory course. While, according to Austin, Cochran, and Arnold (1985), specific teaching of grammar skills within such a course can improve the use of grammar itself, "students can learn technical aspects of writing by practice and class discussion of theory and good and poor examples . . . regardless of their initial grammar competency" (p. 271). They also warn against a teacher letting low diagnostic test scores create a preconception that a "student cannot improve his or her technical writing skills" (p. 272).

As an alternative to grammar pretests, demographic surveys can be a convenient way to study writing performance, as shown, for example, in Myers' study of collaborative writing (1991). Brown and Black go further and suggest (1987) making a "student profile" an opening assignment in the introductory course. And even studies that support the use of grammar testing bring in demographic elements. Waltman and Smeltzer, for example, although not investigating the direct link

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between academic average and course grade, note that "a significant relationship [exists] between GPA and student scores" on a grammar test which itself can be used to predict performance (p. 66).

A questionnaire that could combine various sorts of demographic information to identify strong or weak students could use this data to forecast course performance and could identify them more simply than grammar testing. This study attempted to develop and test such a questionnaire.

METHODOLOGY

This study attempted to determine if a significant relationship existed between students' personal and academic profiles and their final course grades in an introductory business communication course. Also of interest was the relationship between single background factors or combinations of factors and the degree of success in the course. A survey was used to gather data for the student profiles.

Course Characteristics

The course is required for students in a variety of business majors and for students majoring in criminal justice and health records administration. It is also chosen frequently as an elective by English and Speech Communication majors and less often by the general student body. Successful completion of a two-semester composition sequence (including a grade of "C" or better in Composition I) is a course prerequisite.

A common syllabus is used for all sections of the course; between five and seven sections of 25 students each are offered every semester. All instructors are required to include units in reviewing the writing process (including audience analysis), writing letters and memorandums, writing reports (including use of graphic aids), and oral communication. Instructors may also choose to supplement the required topics with such subjects as international communication or resumes and cover letters.

Subjects

The sample consisted of all students who completed the introductory business communication course at York College of Pennsylvania between September, 1989, and December, 1990. This sample included 402 subjects (202 females, 200 males) ranging in age from 19 to 52. Because of the "200-level" course number and the composition prerequisite, most of the subjects were of sophomore standing or higher.

Development of Student Profiles

The profiles consisted of three elements: personal background,

academic experience, and writing experience. Personal background identified age, sex, and part time or full time student status. Academic experience consisted of both a quantitative element (total credits earned) and a qualitative one (grade point average). Transfer students were also asked to identify themselves as such.

Writing experience was assessed from grades earned in a required two-semester freshman composition sequence in which course skills were arranged in order of increasing cognitive sophistication according to a hierarchy developed by William Perry of Harvard in 1970 (cited by Rodgers, 1983, 7). Students were asked to give their composition grades for each semester. They were also asked to state whether they had repeated either semester of composition or the introductory business writing course itself. In the case of repeated courses, the last grade earned was used in this study.

Students completed copies of a survey form at the first session of the business writing course; these forms were collected and retained by the instructor until the semester's end. At that point, the students' grades were entered on each form, either by the instructor or by one of the researchers from a list supplied by the instructor. Names were eliminated as the data were entered. Pearson correlations, t-tests, and stepwise multiple regression analysis were then used to determine the relationships between survey items and students' performance in the course.

RESULTS[1]

Results of this study have indicated combinations of student background factors that might predict performance in the business communication course. Various measures showed such connections.

Initial Pearson correlations of the raw data indicated that student course grades in the business communication class were significantly related to the age of the student ($r=.35$, $p<.01$), the student's gender ($r=.20$, $p<.01$), whether the student is enrolled full-time or part-time ($r=.32$, $p<.01$), the student's GPA ($r=.54$, $p<.01$), and the student's grades in the two consecutive semester introductory English course ($r=.39$, $r=.47$, respectively, per semester, both values at $p<.01$).

Student t-tests of these six significantly correlated variables with the present student course grade indicated significant mean differences between present course grade and age ($t=-74.9$, $p<.0001$), gender ($t=26.8$, $p<.0001$), enrollment ($t=40.1$, $p<.0001$), and the first semester introductory English grade ($t=-1.83$, $p<.07$). A nonsignificant

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[1] Statistical analyses and discussion were contributed by Brian Furio, Ed.D., Assistant Professor of Speech Communication, York College of Pennsylvania, from data supplied by the author.

relationship was indicated for the second semester introductory English grade.

A stepwise multiple regression of these same six independent variables predicting present course grade as the dependent variable indicated that a student's GPA, his or her second semester introductory English grade, and whether the student was enrolled full-time or part-time were significant predictors of performance in the business communication course accounting for 33.5% of the variance (R^2=.3345, F<.00001).

At this point in the analyses, the present business communication course grade was categorized into high grades (A or B), middle grade (C), or low grades (D or F) in an attempt to eliminate the middle students and focus on what specifically affects high and low performance in this course. Significantly related independent variables were also similarly categorized where necessary. Given the nominal nature of the data, a crosstabulation of the data was performed. Significant Pearson chi-square relationships were indicated between achieving a high present business communication course grade and the student's age (p<.000001), their enrollment (p<.000001), their GPA (p<.00002), the first semester introductory English Composition grade (p<.001), and the second semester introductory English Composition grade (p<.000001).

A significant Pearson chi-square relationship was indicated between achieving a low present business communication course grade and the student's grade in the first semester of the introductory English course (p<.01). A strong negative Pearson correlation supports this result (r=-.6794, p<.01). All other independent variables produced nonsignificant relationships.

Supplemental correlations indicated that females performed significantly better than males in both introductory English semesters and the business communication course (r=.18, r=.21, r=.20, respectively, all values at p<.01). In addition, female subjects in this sample (202 females to 200 males) indicated a significantly higher GPA than male subjects (r=.16, p<.01).

A significant positive relationship was indicated between one's GPA and performance in the introductory English course (r=.55, r=.62, respectively, per semester, both values at p<.01). A significant positive relationship was also indicated between the two semesters of the introductory English course (r=.57, p<.01).

CONCLUSIONS AND DISCUSSION

The results of this study suggest, first, that factors do exist which influence performance in the introductory business

communication course and, second, that these factors can be isolated through a questionnaire. Demographic factors (age, gender, enrollment status) as well as academic variables (GPA and performance in introductory English Composition courses) may constitute such influences. Overall, strong performance could be predicted more confidently than could weak performance.

As the ages of the subjects in this sample increased, so did the grades earned in the introductory business communication course. Further, part time students tended to perform better than did full time students. These results may explain the frequent perception that nontraditional students tend to do better in such courses, a perception that gains credence from research showing that maturity does affect achievement in the business communication course (Forman, 1991). Since nontraditional students in this sample and elsewhere typically have spent several years communicating in the world of work, this result may be at least partly explained by that wider experiential background. Women's course performance surpassed men's at all levels, both in the Composition and the business communication courses, possibly a reflection of longstanding evidence of general female academic superiority early in the academic career (Astin, 1971). Further investigation is needed to substantiate both likelihoods.

The relationship between GPA and course grades supports the connections found by Bowman, Branchaw, and DeRyke (1989). This result suggests a link between verbal ability and overall academic strength. Also useful (along with the findings about GPA) for the teacher of business communication is the connection between performance in the first half of the English Composition course and in the business communication course.

Strong and weak performance in the first composition course correlated with similar achievement in the business communication course. Results of the t-tests strengthened support of this statement. High scores on the second half of the composition sequence also correlated with high scores in business communication, although the same cannot be said about low scores. This predictive value does not exist for low scores, a condition which may account for the insignificant t-test result.

Nonetheless, the Composition II grade, in conjunction with GPA and student enrollment status (as full or part time), significantly does predict high performance in business communication, accounting for 33.5% of the variance in course grades. While data predictive of low performance are less conclusive, a weak ("C" or lower) performance in Composition I does suggest poor ("D" or "F") performance in business communication, a trait which instructors seeking to intervene to aid weak students should consider, especially if positive factors are absent. This difference in impact of the first and second halves of the composition course may result from the sequential organization of that course, with Composition I emphasizing skills involving less maturity of cognitive approach than does Composition II.

A follow-up sampling conducted between January and December, 1991, confirmed the effectiveness of the questionnaire approach. This phase of the study tried to identify likely weak and strong students through a combination of factors from the original investigation.

One factor from each of the three areas of the original study was chosen as a performance indicator. Because gender would be obvious and few of the students in the second sampling were at either extreme of the age scale, enrollment status (FT/PT) was selected as a "personal background" criterion. Grade point average (above 3.0 or below 2.5) was chosen to represent "academic experience," and grade in freshman composition (Comp. I for low grades; Comp. I and II for high grades) represented "writing experience."

Of 125 students, 79 (approximately 63%) indicated two of the three negative factors or three of the four positive ones. Twelve students who had two indicators or more in both the positive and negative areas were deleted from the sample, still leaving over half of the total number of students (67, or 54%). For this target population, the questionnaire proved a useful predictive tool. Of 46 subjects having two or more of the "low" characteristics, 34 (79.1%) actually earned grades of "C" or lower. Results for the "high predictor" group were even slightly more consistent; of 24 students predicted to earn "A" or "B," 20 (83.3%) actually did so.

From this study (both initial and follow-up stages), one may conclude that eventual performance in the introductory business communication course can be addressed through a questionnaire rather than only through formal pretesting. Further, demographic, as well as academic, factors may play a role in influencing student performance in business communication.

While prediction of strong performance is more attainable than prediction of weak performance in this course, some indicators of both do exist. Still, since poor performance is most likely to concern instructors of business communication, further research is needed into factors predictive of such performance. One possibility for such research is the examination of specific Composition I skills themselves and of their relationship to performance in business communication. Further, the impact of intervention strategies upon eventual performance once high and low risk students have been identified merits investigation.

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